

METHOD FOR ALLOWING MULTI-USER ORTHOGONAL AND
NON-ORTHOGONAL INTEROPERABILITY OF CODE CHANNELS

ABSTRACT OF THE DISCLOSURE

A technique for allowing a first and second group of users to share access to a communication channel such as a radio channel. A first group of users is typically a legacy group of users such as those using digital CDMA cellular telephone equipment. The second group of users are a group of data users that code their transmissions in different formats optimized for data functionalities. The first group of users share one modulation structure such as, on a reverse link, using unique phase offsets of a common pseudorandom noise (PN) code. The second group of users share another modulation structure but in a manner that is consistent and compatible with the users of the first group. Specifically, the users of the second group may all use the same PN code and code phase offset. However, they are uniquely identified such as, for example, assigning each of them a unique orthogonal code.

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